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Agricultural Memorandum No. 364

Chances of return to capacity before 1 November

L P Smith

Using the 1940-59 data, formulae for the number of years in 10 when the soil is likely to return to capacity before the end of October were derived:-

North (under 30 in.)	7.6	+	0.45R - T
E Midlands	16	+	0.59R - 1.7 T
W Midlands	10.6	+	0.48R - 1.2 T
East	3.5	+	0.2R - 0.42T
South East	6	+	0.32R - 0.7 T
South West	8.3	+	0.27R - 0.7 T
Wales	5.6	+	0.34R - 0.65T

where R = average annual rainfall

and T = average summer potential transpiration

Using these formulae rainfall limits for given risks of 3,2 and 1 years in 10 for the various counties can be found.

(The word "all" means all land in the county; the word "none" means that no rainfall averages are low enough).

Any comments or criticism on this Memorandum should be sent to the Author.

Meteorological Office
Bracknell
Berks
February 1971

G. 13074/VT/2/71/60

Annual Rainfall

Years in 10 capacity before 1 November

	3	2	1
NORTH			
Cumberland	None	None	None
Durham	24.7	None	None
Northumberland	None	None	None
Westmorland	None	None	None
N.R.	25.9	None	None
YORKS AND LANCS			
Lancashire	29.5	None	None
E.R.	26.9	24.7	None
W.R.	26.9	24.7	None
WEST MIDLAND			
Cheshire	28.0	26.0	None
Hereford	26.9	None	None
Shropshire	26.8	None	None
Stafford	26.4	None	None
Warwick	27.8	25.8	None
Worcester	28.2	26.2	24.2
EAST MIDLAND			
Derby	26.5	None	None
Leicester	27.8	26.1	24.4
Lincoln	29.1	27.4	25.7
Northampton	28.7	27.0	25.3
Nottingham	28.5	26.8	25.1
Rutland	All	26.4	24.7

Annual Rainfall

Years in 10 capacity before 1 November

	3	2	1
EAST			
Bedford	All	All	24.5
Cambridge	All	All	All
Essex	All	All	26.4
Hertford	29.3	26.2	None
Huntingdon	All	All	All
Norfolk	All	All	25.8
Suffolk	All	All	25.7
SOUTH EAST			
Berkshire	29.6	26.4	None
Buckingham	29.0	27.3	25.6
Hampshire	29.6	26.4	None
Isle of Wight	31.2	None	None
Kent	31.1	27.9	24.8
Oxford	28.2	26.2	None
Surrey	29.9	26.7	None
Sussex	29.8	None	None
SOUTHWEST			
Gloucester	28.0	26.0	None